



D i g i t a l W a s h i n g t o n

*Reflects the values of the people of our state*

## Principles of Enterprise Digital Government

This space called Digital Washington reflects the values of the people of our state—open and accessible government, respect for privacy, and a bias for leading by doing. Digital Washington also transcends time and distance, which have been historic challenges in a large and often rural state.

This community called Digital Washington has also forged a covenant, based on the state's unique character, experience, and aspirations — the preamble of which reads, "We're turning government to face the people."

The articles of the covenant embody the principles of enterprise digital government:

1. **Citizen-Centricism:** The citizen as owner of government, not just a customer of its services, is the common and first decision point in the design and implementation of digital government.
2. **Convenience and Ease of Use:** Online applications are designed to improve citizen convenience and ease of use by improving service delivery and reducing waiting periods.
3. **Business Transformation:** Web-enablement is a necessary but, by itself, insufficient outcome of digital government. In the design of applications, architecture, and infrastructure, and in the development of the policy framework, it is vital to extract time, cost, and effort from business processes and their related value chains.
4. **Cost and Complexity:** It should be no more costly, and should be less complex, for citizens to do business with government online than by conventional means.
5. **Capacity:** The new investment required to expand capacity through digital government should be amortized across applications and agencies, not borne solely by the first application in a cost benefit analysis. Once established, the new channel should drive down the cost of delivering a unit of service.
6. **Consistency:** The design of online applications should adhere to common architectures for security, authentication, electronic payments, and universal user interface design.
7. **Enterprise-wide Solutions:** The design of online applications should lend itself to the coordination of services between, and among agencies. The use of shared infrastructure and design templates lends itself to transferable solutions across agencies.
8. **Performance:** The design of online applications should improve performance of the business transaction cycle by reducing time, effort, and complexity.
9. **Accountability:** The design of online applications should improve data accuracy, and transaction auditing, archiving, and retrieval.
10. **Time to Market:** Online applications should be scoped such that releases are developed and launched in three to nine months.
11. **Bias for Action:** Agencies should be willing to be a first mover with the confidence to "launch and learn." In taking appropriate risks, first movers should use sound practices, exercise common sense, and act in good faith.
12. **Core Competence:** Digital government is a core competence of public service in a network-connected world, and the kernel of new models of governance in the 21<sup>st</sup> century.



D i g i t a l W a s h i n g t o n

*Changing the citizen's experience  
with government*

### A. Policy and Management Framework

Occupants of the community town hall, referenced in Release 1.0 of the Digital Government Plan as the Community of Value, have been busy defining and adopting policies, procedures and rules of the road for Digital Washington. The new digital government policy documents build on a strong foundation of earlier information technology portfolio work, including the concept of information technology portfolio investment and management itself, as well as critical systems, bedrock infrastructure, and the incubators of business transformation found among the early adopters. The most important areas of phase one include protections of security and privacy, safeguards against piracy, collective memory, and the transformation of the state enterprise for the 21<sup>st</sup> century.

The Governor, with the support of his Cabinet and Subcabinet on Management, and a steering committee composed of deputy directors, has framed an Enterprise Internet Strategy for the state, which is supported by initiatives such as Web Presentation User Interface Guidelines developed by the Technical Architecture Advisory Group (TAAG) and the Digital Government Executive Steering Committee (DGESC), and Internet Standards and Protocols adopted by the Information Services Board (ISB). Moreover, digital government has become part of Washington's culture and statewide agenda. The annual budget instructions direct agencies to explain how their information technology budget requests will further the objectives of the Digital Government Plan and support the strategic use of the Internet in the delivery of government services. The instructions also ask agencies to consider

how the proposed investment will change the public's experience in dealing with government and how it will improve electronic access to agency information. Performance agreements between the Governor and heads of his executive cabinet include at least one goal that initiates, implements or enhances a digital government application.

### Protecting the visitors and residents of Digital Washington

In the arenas of privacy and security, the Governor has released two executive orders, one on Computer Software Piracy, and the other on Privacy and Public Disclosure. The latter builds, in part, on the DGESC's Digital Government Online Privacy Policy Development Guidelines, which are accompanied by a Model Privacy Notice that agencies are encouraged to duplicate and modify to meet their individual situations.

The state's new comprehensive Internet-oriented Technology Security Policy was adopted by the ISB in July 2000, following consultations with leading security experts in the private sector, University of Washington, and state government. Its purpose is to create an environment that maintains system security, data integrity and privacy by preventing unauthorized access to data and by preventing misuse of, damage to, or loss of data.

The updated policy recognizes a change in conducting the state's vital public business—a transition from multiple proprietary network connections over dedicated, leased networks to the Internet. To ensure the integrity of transactions and the supporting infrastructure, the policy details the parameters of a shared, trusted environment through an enterprise approach to security in state government.

Washington will continue work on these issues during the next phase of digital

government by developing IT Security Standards and Guidelines to support and further clarify the Security Policy; drafting a model privacy statement for agencies to adopt; refining the model privacy notice as needed; and reporting on the status of implementation of the Governor's privacy and piracy orders.

The Office of Financial Management and the State Treasurer's Office have developed policies on electronic payment methods that govern the types of payments that can be used and the circumstances under which the various options should be considered. The new Economic Feasibility Model requires an assessment of the cost and revenue benefits of an agency's proposed electronic payment method, and importantly, expands the allowances for customer benefits, revenue, new or increased costs, and cost avoidance or reduction. The model contains an extensive number of potential characteristics such as increasing data accuracy, use of convenience fees, reduction in travel times, and availability of float as elements that agencies need to consider in their business and financial case analyses.

The Intended Use Guidelines, developed by the TAAG and DGCEC with the assistance of the Office of the Attorney General, are for use on state web sites that are publicly accessible. They specifically apply to sites upon which the agency places or allows "external content," that is, information provided by entities that are not part of government.

### **Organizing Digital Washington by what the citizen needs to get done**

The DGESC has also identified a need to organize information in a citizen-centric manner, and has, therefore, made a commitment to develop several

"portlettes" as follows:

- **Digital Citizen:** The Digital Citizen, currently under development, will be a one-stop web site that provides links to voter services and information, legislation, statutes and rules, state budget information, state historical records, and city and local government contacts. User input for this site includes representatives from the senior citizen center, League of Women Voters, Allied Daily Newspapers, a high school technology instructor, principal, and student, and an engineering company.
- **Life Events:** This site is also currently under development and is a one-stop page that leads to topics on health, education, family and community; transportation, property and housing; and police, fire and emergency. The state's user input for this site includes representatives from Department of Veterans Affairs, Department of Health, State Library, Department of Social and Health Services, Department of Information Services and Office of Financial Management. The public's user input representatives have not yet been assigned.
- **Small Business:** Plans for this one stop page include organizing federal, state, and local business links by business development event, including how to start a business, hiring employees, and resources. Digital government creates new opportunities to reinforce the public's trust in government, including but not limited to meeting the highest tests for public accountability. To that end, the Secretary of State administers the Electronic Authentication program under statute, the State Auditor is working with early adopters to develop appropriate audit standards for digital government, and the State Archivist is working with

infrastructure providers to ensure processes are in place for retaining the state's institutional memory when there are no physical artifacts.

#### **Amending laws to keep up with the Internet age**

The next policy frontier of digital government will be legislative. As technology progresses at Internet speed, laws that provided adequate governance in the past are in danger of becoming anchors on the process of providing governmental services over the Internet. Governance of digital government will not be complete until the underlying statutes are brought up to date in a way that will support and guide digital government construction for all members of the new digital community. Statutory reforms must also allow new capabilities to be utilized in a way that best delivers the full power of government access to the citizen.

In addition to formal policy, Washington is devising a number of programs and incentives to facilitate the development of agency applications. The digital readiness guide, a new government supply chain strategy and trading partner strategy will all be discussed in depth later in this document.

#### **B. Dot.Gov Infrastructure: The New Operating Environment for Service Delivery**

Successful and timely development of the supporting infrastructure has been one of the most critical components of the digital government plan. Not only has development of the infrastructure driven decisions on policy and the nature of new applications, its successful completion now provides the foundation upon which subsequent phases of digital government will be built. Applications that are being built by all agencies

across state government can now take advantage of a common framework of portals, security, trust, and payments.

Part of the transformation to digital government requires that the state's 158 agencies work together to function as a single enterprise. Through ongoing collaboration and teamwork with agencies, the Department of Information Services has designed the architecture of digital government in a way that gives citizens and businesses a seamless experience as they move from application to application.

The architecture implementation plan is based on a statewide review of agencies' requirements, which were identified through agency interviews. The resulting product is an architecture blueprint designed to meet the infrastructure needs of agencies while at the same time presenting users with an experience that gives a common look and feel to all the state's applications. Portals, trust, and payments are the key elements of this infrastructure.

#### **Behind the Scenes Tour of the Digital Government Infrastructure**

The web site called [howstuffworks.com](http://howstuffworks.com) addresses the curiosity about and often, the need to know, how things work. This same tendency has made behind-the-scenes tours a hot ticket at movie studios and theme parks. It also explains why growing numbers of specialty publications, and prime time TV shows offer extensive coverage of how buildings, bridges, and engineering innovations are designed and developed. Their cameras are able to go places in the urban architecture that other observers cannot. In that spirit, Release 2.0 now provides a behind-the-scenes tour of the Digital Government Infrastructure.

## Portals

**Access Washington**, the state's portal to the Internet, has been in production since November 1998. Since its launch, traffic on Access Washington has grown to over one

million page views per month.

Information offered through the portal is organized by areas that are of interest to citizens and businesses, rather than structured to mirror agency organization. This allows users to interact with the

state as a single enterprise as they access the diverse offerings of multiple state agencies. Access Washington operates in a physically secure environment, carefully managed by the Department of Information Services.

**Inside Washington** is the state's intranet.

It allows government agencies to conduct business among themselves in a secure environment behind the state firewall.

This portal provides agency-to-agency services, employer-to-employee information, and links for intergovernmental relations.

Inside Washington is organized in a topical manner to facilitate navigation by employees as well as by agencies.

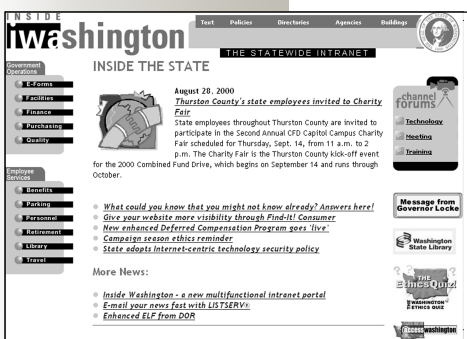
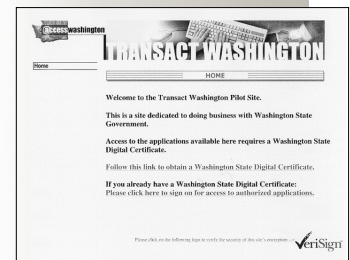
During this next phase of digital government implementation, Inside Washington will also serve local government organizations via the Intergovernmental Network (IGN), offering opportunities for intergovernmental business online.

**Transact Washington**,

the newest component of the portal infrastructure, is an extension of both Inside Washington and Access Washington.

Transact Washington, now available to a pilot group of early adopters, will give external trading partners a place to conduct business with the State of Washington, and a place for agencies to make their applications available in a secured framework. Once an initial relationship is established, Transact provides a higher level of service by making secured applications available, providing a central, one stop place to find them, and allowing the user to register for them and customize a list of preferences, all in a secure manner.

Transact will include a centralized user registration, as well as a sign-on process requiring just one digital credential for all services. By providing these capabilities centrally, Transact avoids duplication of effort among agencies, presents multiple applications to users that have a single look and feel, prevents the user from having to log in and out of many different agency websites if they have more than one task they need to complete with the state, and makes life easier, faster and more secure for both the citizen and the agency hosting the application.



<sup>9</sup> LDAP is a "lightweight" (smaller amount of code) version of DAP (Directory Access Protocol), which is part of X.500, a standard for directory services in a network. LDAP is software that allows things to be found quickly in a hierarchy of networks. It's very powerful when lots of directories, stored on different servers, need information from one another, as will be necessary with the state enterprise approach.

<sup>10</sup> Boolean logic, named after the 19<sup>th</sup> century mathematician, is algebra reduced down to a binary system of yes/no responses. The binary system is fundamental to computer logic.

<sup>11</sup> Directory Nucleus is a single computing platform, or a series of platforms configured so as to respond as if they were one platform, that provides the following functions:

- 1) Transact Washington registration information distribution mechanism (LDAP directories will be receivers of the information in the future, hence the name "Directory Nucleus" because those other directories will be connected to the previously existing Directory Nucleus)
- 2) Transact Washington registration coordination by keeping track of registration requests, the associated registration data, and any necessary

Phase one of Transact now provides a central assemblage of the early adopting agencies' applications within one click of the Access Washington front page. Phase one also offers information about how to get secured access to restricted applications using digital certificates.

Phase two of Transact will provide a production authentication gateway for all agencies, as well as central registration and authorization to secured applications.

All of these features build upon the ISB adoption of the Lightweight Directory Application Protocol (LDAP)<sup>9</sup> by providing a standard for accessing online directory services.

### A smarter search engine

Another feature of Washington's phase two portals will be a "smart" search engine that allows a user to make search queries in plain English. Rather than using the industry's standard method of requiring the user to string together key words in just the right way, this new, non-Boolean<sup>10</sup> search engine will supply an answer to a question phrased in ordinary language. Thus, when a user types in "I've lost my job, how do I find another?" The search engine will bring up an answer such as Worksource Washington, an application that lists job orders, training information and a way for job seekers to apply for jobs over the Internet. It will also deliver links so that the job seeker can apply for unemployment insurance benefits online as well as other applications that may be useful.

## Trust

The infrastructure that supports the capabilities of Transact Washington includes a Directory-Nucleus<sup>11</sup> for application registration and user authorization, SecureAccess<sup>12</sup> for user customization, and the DirectoryNucleus and SecureAccess together for user registration.

In the future, SecureAccess and the Directory-Nucleus will also support application initialization. This is a function requested by agencies that allows for a customer application to receive registration data at the time of a user's successful authentication, allowing highly specific customization of the customer's application.

The design criteria for both SecureAccess and DirectoryNucleus have been gathered from the best of the industry and include high availability, high audit ability, open standards, minimal impact on DIS customer application development, and minimal impact on the state's trading partners. The constraints include a requirement for flexible, adaptable architecture, and the capacity for recovery within 72 hours after a disaster event.

### DirectoryNucleus- The beginning of a state wide META directory

DirectoryNucleus is a centralized repository for application registration information only. It also functions as the codebase for Transact Washington. It is a relational structure accessed via a secure HTTP and secured LDAP using SecureAccess authentication. It runs on clustered hardware and software designed for online system upgrades. It is also a data dictionary with descriptions of data needed from customers at registration time.

**Microsoft**

application authorization information and a backup data source for SecureAccess databases. DirectoryNucleus functions as a central collection and coordination point for Transact Washington dataflows. In the future, it will be one of the elements of a statewide meta-directory framework that includes Microsoft Windows 2000, Certification Authority or Public Key Infrastructure (PKI) directories, and other application-specific directory structures. It will also be a data store for the application initialization function of Transact Washington that has been requested by agencies.

### **Protecting agencies and consumers with SecureAccess**

SecureAccess is an evolution of the existing security function, Fortress. It is a policy-driven solution to the questions of what the state should and should not do relative to security, protecting agency's applications, and designing infrastructure so that participating local governments can also field their applications through Transact Washington.

SecureAccess will be hosted on IBM's PolicyDirector, the current "best of breed" for protection. Along with the firewalls, it is part of a layered defense method that relies on a policy of "mutual distrust until proven friendly," that is, each platform only accepts information from the one in front of it. Secure Access authenticates with security credentials, receives all its information from DirectoryNucleus—which ensures that the bitstream source is known—and authenticates Intergovernmental Network users and Internet users.

Through Transact Washington, agencies will set their own rules for protecting their applications, and prescribe all criteria for who

will access which of their applications and under what circumstances. In the future, Secure Access will provide, at user authentication, any previously specified user data fields to the application being accessed. It will also provide signed object delivery, and secure FTP and Virtual Private Network access as another offering through Transact Washington.

### **Digital certificates establish trust for business transactions**

Another one of the key infrastructure security goals is to increase the level of assurance that parties involved in an electronic transaction are who they claim to be and that the transaction data has not been altered.

This will be provided using asymmetric, or public key, cryptography and a trusted third party, also known as the certification authority (CA). DIS has announced the selection of Digital Signature Trust Co. (DST) as the successful vendor for certification authority and the PKI services for any public agency in Washington. DST will provide both public and private entities with digital certificates, which can be used, among other things, to digitally sign documents and prove a user's identity.

By offering certificates that have escalating levels of assurance, Washington will be able to map the appropriate level of assurance to corresponding electronic business applications. For example, the requirement for a high level certificate (one that initially required the holder to personally appear before the CA to be authenticated) would be appropriate for high security applications or high dollar transactions, but would be unnecessarily burdensome for a citizen applying for a hunting license. Lower risk transactions could more appropriately be vouchsafed

cleanup/housekeeping chores once a registration is completed or denied 3) Transact Washington assistance, to customer applications, in providing customization information for a user (available in the later phases of digital government) 4) Transact Washington object repository for shareable code to allow customer applications to utilize routines, modules or data structures developed by other agencies (available in the later phases of digital government)

<sup>12</sup> Secure Access is a single computing platform, or series of platforms configured so as to respond as if they were one platform, that provides authentication of a user and access control for that user's usage of a customer application. The access control consists of insuring that the user's access is restricted to specific, previously defined application components (such as webpages or web directories on a given webserver).

**IBM**

burdensome for a citizen applying for a hunting license. Lower risk transactions could more appropriately be vouchsafed with a less expensive certificate carrying a lower level of assurance, which would not require such a rigorous authentication process.

Using digital certificates, trading partners can use e-mail or the Internet to digitally sign and send legally binding documents, such as contracts or purchase orders, without having to follow up with a hand-signed paper copy.

Digital certificates save time, establish trust in electronic transactions, and have the potential to dramatically reduce paperwork not only in government-to-government and government-to-citizen transactions, but among private entities, businesses and citizens in their own transactions on the Web. Another use for digital certificates is to identify a person requesting access to secure applications and databases. For instance, accessing a database that contains sensitive information on unsolved crimes would require a law enforcement officer to not only have clearance to that application, but also would require proof of identity with a digital certificate that has the highest possible level of assurance. Similarly, a trading partner requiring access to less sensitive data would be able to use a lower assurance level certificate to do so. Transact Washington will employ digital certificates to provide trading partners with convenient, single sign-on access to government services. The early adopter phase of CA and PKI services will be available in the fall of 2000. The

production level of these capabilities will be available statewide during phase two of the infrastructure development.

## Payments

In addition to the three pieces that make up the digital marketplace of Transact Washington—the portal, the directory, and the PKI—there is the final component of electronic payments. The Office of the State Treasurer has signed a Statewide Merchant Bank Contract, which specifies the firms that state agencies may use to process Internet credit card transactions. A subsidiary agreement with Cybersource, an Internet credit card processor, has also been signed so that applications can accept online payments.

Building off this agreement, DIS is offering agencies a hosted environment where they can run applications that require payments by credit card. The hosted environment provides agencies with the secure, cost effective, reliable, and recoverable infrastructure that meets agency needs for credit card processing. This relieves the agencies of the need to host their own very secure environment and is available to all agencies.

Other options for payment methods will be implemented during the second phase of the infrastructure development and will include a pilot for electronic funds transfers, also known as electronic checks. These will ultimately be available to the state's trading

Digital  
Signature  
Trust Co.

CyberSource®  
the power behind the buy button



## Support

Washington has defined the concept of infrastructure as everything that can support agency applications on an enterprise wide basis, from a common access point to the 24 x 7 help desk and electronic storage. This broad definition provides maximum support to agencies, allowing them to focus their attention on creating new applications without having to research and build from scratch the components that are common to any digital government application. While help desks, the ability to audit transactions, and archiving may not typically be considered part of a standard IT infrastructure, Washington has chosen to make them available, in an effort to encourage agencies to take an off-the-shelf approach to these components.



## Middleware Tools

Middleware can be described as network-aware system software, which is layered between an application, the operating system, and the network transport layers. Its purpose is to facilitate some aspect of cooperative processing. Examples include directory services, message-passing mechanisms, distributed transaction processing monitors, object request brokers, remote procedure call services, and database gateways.

Washington's current infrastructure supports more than seven terabytes of data scattered over a very diverse set of technologies,

partners, those businesses and citizens that make enough regular transactions to warrant establishing an ongoing funds transfer relationship with the state.

including desktop computers, servers, midrange, and large-scale (mainframe) computing environments.

During the past phase of digital government implementation, DIS acquired a middleware software product from SAGA that can be used by agencies' digital government applications to communicate and transfer data across these diverse computing platforms. The most recent acquisition enables the access of ADABAS and DB2 mainframe databases via web-enabled applications. DIS will continue to evaluate other middleware software during the next phase of digital government implementation to determine if additional functionality can be achieved.

## Web-based Application Support Services

If digital government is going to be convenient, then citizens must be able to get assistance with online services on a round-the-clock basis. In an effort to support agencies' digital government initiatives, and on behalf of the state, DIS has contracted for web-based application support services with SafeHarbor.com. By providing outsourced support services through a master contract, this company allows agencies to design, build and deliver on-line services to their customers without increasing internal staff to furnish 24 X 7 help desk services. SafeHarbor.com, located in rural Grays Harbor County, Washington, exemplifies the practicality of stimulating isolated economies through technology sector start-ups. SafeHarbor.com will provide individuals

who interact with agencies' online applications with world-class support services over the Internet. These web-centric services are augmented with state-of-the-art telephone support, and are staffed by content and technical experts on a 24 X 7 basis, 365 days a year.

SafeHarbor.com allows citizens to use the Internet to conduct business with confidence, knowing that their questions will be answered efficiently and effectively. Users have the option of obtaining answers via frequently asked questions, e-mail, advanced chat and/or telephone support options.

### E-Storage

The e-storage component of the infrastructure supports the storage requirements of completed electronic transactions and e-mail. With the move to digital government, each agency still has the requirements to retain pertinent information similar to the existing

requirements for paper-based transactions.

DIS established an e-storage service to assist agencies in meeting their records retention requirements. In the first phase of e-storage pertinent information is saved to CD-ROM in its original format. These CDs are stored at the agency responsible for the data and remain available for research and audits. In its next phase, the e-storage initiative will investigate storing the information at a central location and in some cases, may transfer the information from the agency to the State Archives for long-term retention, which is defined as greater than 6 years.

The digital government infrastructure detailed above opens new channels for delivering service and managing internal operations, both of which must be reconciled with the state's financial and administrative systems. The transition to Digital Washington has heightened efforts to set a new direction for the state's central accounting, budget, procurement management, and human

### Infrastructure task list

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- Install a plain language search engine
- Provide production authentication gateway, centralized registration and authorization to secured applications for all agencies via Transact Washington
- Extend *Inside Washington* to local government via the IGN
- Make digital certificates available on a statewide basis
- Conduct e-checks proof of concept
- Evaluate middleware with XML implementation
- Implement web-based application support help desk for *Access Washington*
- Implement CD-based e-storage
- Launch "Servers a la Carte" hosting

resources systems. The Office of Financial Management and the departments of Personnel, and General Administration, and Information Services continue work on a new blueprint and implementation of such systems, which are—to extend the community building metaphor—the power plants of state government operations. The blueprint calls for a cross-functional data architecture to meet processing and reporting requirements. To that end, the implementation plan identifies a number of incremental developments—including a human resource system feasibility study, a pilot project on activity based costing, and an assessment of the procurement management business process and core financial systems.

### **Moving Toward Scalable Infrastructure**

In summary, Washington has provided the robust infrastructure needed to support digital government applications as promised in the first release of the Digital Government Plan. Agencies now have the ability to put a full complement of government services on the Internet using the following building blocks:

- Internal and external portals,
- User-friendly navigation systems,
- A secure environment, and
- The means to conduct business transactions in a trustworthy, supported, personalized, accessible yet controlled manner.

### **Resources, Flexibility and Assistance**

The completed components from phase two of the infrastructure development and the existing infrastructure described above will be instrumental in maturing the infrastructure that supports Digital Washington. This is a full

commodity infrastructure, containing the depth, breadth, capacity, and versatility to support and enable agencies' applications of any variety or complexity. Because the components are modular, agencies can select only what they need for their particular applications. Because there are sufficient options provided among the infrastructure components, agencies have flexibility in their approaches to application development. And because the infrastructure components are provided centrally, a consistent look and feel from application to application can be supported and efficiencies can be realized from the "build it once" approach.

The commodity approach to infrastructure, coupled with the support available from the Academy, gives Washington's agencies the equivalent of a Home Depot approach to providing services over the web: customers can select the materials, sign up for a "how to do it" class, even get help in designing their business transformations, all from one source and, thanks to economies of scale, at the lowest prices.

### **C. Online Public Service**

The Pacific Northwest Digital Government Summit in July 2000 explored the new models of governance, noting the emergence of a "new civics" in the relationship between citizens and their government. While noting that bureaucratic processes tend to sterilize citizen relationships with government and are often outpaced by the speed and sophistication of technology, summit delegates were urged not to lose the promise of using the Internet to create—and reinvigorate—community.

Believing that meaningful interaction—

often over a meal—is the key to understanding each other, Seattle City Council Member Jim Compton challenged the builders of Digital Washington to create an environment where people can “break bread together on the Internet.” Metaphorically speaking, at this point the bake ovens and kitchens have been installed and powered. The flour, water, sugar, shortening and salt have been mixed. All that remains is the determination to add the yeast.

In fact, Washington is already serving up over 240 applications over the Internet, including the 22 that are freshly baked. There are an additional 89 applications scheduled for completion by agencies within the next few months. Currently citizens can:

**Get an eyewitness view of current road conditions.**

Using the latest in digital video camera technology, this Department of Transportation application lets citizens see live pictures of freeways and mountain passes from any one of dozens of locations. The pictures can be downloaded over the Internet and are refreshed every 90 seconds.

**Apply to college and register for classes.**

The Washington Community and Technical Colleges have multiple applications that cover virtually every aspect of a college career from applying for admission to, and in some cases, monitoring the governance of their institution. Potential students can apply for admission to the school of their choice, register for classes and pay online. They can also inquire about their financial aid status, see their class schedules, inquire about grades, search the college library catalog, take classes online, and review some of the administrative agendas and minutes, among other things.

**Find a nursing home and review its inspection report.** The Department of Social and Health Services provides a searchable directory of nursing facilities, including a database that provides information on location, inspection results, staff, and other information. The site also provides information on medicare plan choices, medigap options, fraud and abuse, contacts, and publications.

**Find the best expert for environmental topics.**

The Department of Ecology has placed its entire employee directory online, including information on each employee's areas of expertise. Citizens can access the best qualified person to answer questions on their first phone call without being rerouted or put on hold.

**Conduct a criminal history check.**

Through the Washington State Patrol's WATCH application (Washington Access to Criminal History), citizens have access to felony-conviction Criminal History information.

**File and pay excise taxes.**

The Department of Revenue has been a pioneer in the area of online payments and business process transformation. The Electronic Tax Filing (ELF) application allows businesses to securely file and pay quarterly and monthly excise taxes on line using the Combined Business and Occupation tax payment and filing service. The automatic tax calculation features of this application reduce errors in computing taxes and significantly streamline the process of reviewing and reconciling the submissions.

**Order vital records.**

The Department of Health allows residents to order certified copies of vital records online including birth certificates, death certificates, marriage certificates, and divorce certificates.

Department of  
Social and  
Health Services

Department of Ecology

Washington State Patrol

Washington State  
Department of Revenue

Washington State  
Department of Health

The Department of Health also has a number of planned applications that will use digital certificates to securely exchange disease information among medical providers, local health districts and their own offices.

### **You can get a lot done in the Digital Washington Community**

In addition to these existing applications, agencies are currently working on several other projects that will make life easier for citizens. Among them is the Department of Licensing's (DOL) application for processing vehicle license renewals—or tabs—over the Internet. Under the plan, county auditors and subagents fulfill the orders made through DOL's Internet Purchasing Option. Vehicle owners may choose to have the tabs mailed to their address or pick them up at the location of their choice.

If the portals are the equivalent of the roads, ports and bridges in Digital Washington, e-payments offer the equivalent of the community bank, new policies provide the town constitution or covenant, and the academy is our school, then the numerous applications which depend upon this newly constructed infrastructure are the real output of the digital community. Some of these application products serve a particular segment of the population, such as the government- to-government sector, while others have a broader market appeal. Several existing and prospective applications such as the Electronic Mall, Central Stores Online and the Ultimate Purchasing System offer the community a number of specialty and department stores

in which to procure goods. Applications from the Parks and Recreation Commission function as a travel agency. Several Department of Health applications look out for the public's health as well as any hospital or clinic. The extensive offerings of the Community and Technical Colleges and the state's universities qualify Digital Washington as a college town.

A survey of all the existing and prospective applications, found at the end of this document, show us that Digital Washington is also an agricultural, tourist, research, and industrial town as well as being a government one.

### **Applications delivered since Release 1.0**

The applications rest on the foundation of the portfolio mission and the work of the early adoption portfolio that was described in the first release of the Digital Government Plan. This early work has allowed the digital government portfolio to mature quickly and continue to grow at a rapid pace. In the six months since the release of the original Digital Government Plan, Washington agencies have developed and implemented 22 applications, allowing citizens or the state's employees to:

**Washington  
State Parks  
and Recreation  
Commission**

#### **Apply and pay for Boat Moorage.**

People who wish to moor their boats in state park waters can now use the Internet to pay for a moorage permit with a credit card, then print it instantly from their personal computers. A product of the first Digital Government Applications Academy course, the Washington State Parks and Recreation Commission rolled out its boat moorage e-permit application

in the summer of 2000. As a result of this collaborative effort, boaters can use the Internet 24 x 7, 365 days a year, to purchase permits for docking boats at state parks- a convenient and cost effective online service that dramatically shortens business flows. Last year 1,140 annual boat moorage permits were sold for total revenue of \$82,740.

**Request a campsite reservation.**

Further proving that the web is not the unique domain of large, technologically sophisticated organizations, the Parks and Recreation Commission, a small agency, has launched a campsite reservations application that allows citizens to request a reservation for camping spaces at state parks over the web.

**Apply for Unemployment Insurance Benefits.**

Anyone who has ever been laid off knows how frustrating and demoralizing it can be to spend the better part of a day standing in line in front of the Unemployment Insurance window, rather than looking for another job. This Employment Security Department application allows people who have been laid off to apply for unemployment benefits quickly, easily, and privately over the Internet.

**Research and apply for jobs.**

Job seekers can maximize their efficiency through Worksource Washington. The Department of Employment Security maintains this job order and talent bank

database that allows job seekers to obtain employment and training information, and apply for jobs electronically.

**Access labor market data.**

The Employment Security Department provides citizens with direct access to labor market data through Washington's Interactive Labor Market Analysis (WILMA) application.

**Report suspected incidents of fraud.**

Department of Labor and Industries (L&I) created the Fraud Reporting website to help educate customers about fraud, from people defrauding the workers' compensation system to unscrupulous construction contractors taking advantage of consumers. It provides an online method of reporting suspected or potential fraud to the department's investigators.

**Inquire into the ownership of a vehicle or vessel.** The Department of Licensing uses a pre-existing contractual arrangement for its Vehicle/Vessel Registration Inquiry application, which offers online inquiry into the ownership of any vessel or vehicle registered within the State of Washington.

**Register for workshops at the WISHA University (Washington Industrial Safety and Health Act).**

The Department of Labor and Industries provides the ability to register online for several workshops. Offerings include 12 different workshops on occupational safety and health topics, three workshops on industrial insurance reporting, three

workshops on claims management and loss control, and workshops on ergonomics, return-to-work, and employer orientation, all at no fee.

#### **Purchase Driver's Abstracts.**

Department of Licensing utilizes a preexisting contractual agreement to provide businesses (insurance companies, courts, service bureaus, etc.) with the ability to purchase a driver's infraction record online. This service will be extended to the public in the future.

#### **Apply for a Master Business License.**

This application, developed by the Department of Licensing, allows prospective or existing business owner to apply for, and make changes to their Master Business License.

**Develop operating budgets more easily** through the "BASS" Budget Development System (BDS). Developed by the Office of Financial Management (OFM), this internal state application provides agencies with support in their budget development process. They are able to build budget decision packages containing narrative justification as well

**Develop capital budgets more easily** with the "BASS" Capital Budget System (CBS). This OFM application provides the agencies with support in the development of their capital budget. Various types of capital projects are supported, as well as automated formulas for estimating project costs.

#### **File a travel voucher online with the Travel Voucher System (TVS).**

The Office of Financial Management has automated the entire process of preparation, approval and payment of employee travel reimbursements with this application, saving considerable resources for the state and reducing the hassle factor for employees.

#### **Manage public employee retirement accounts**

Manage public employee retirement accounts. Department of Retirement Systems (DRS) has placed several separate applications online that allow employees to access and manage their retirement investments, including checking balances and making transfers between investment options. the applications also provide tools for retirement planning such as projecting future retirement account balances and estimating retirement benefits.

**Department of Retirement Systems**

**Office of Financial Management**

**Register for Retirement Seminars.**

The Department of Retirement Systems has developed the Registration for Retirement Seminars application that allows members to fill out an online retirement seminar registration form using a series of drop down menus. When the form is submitted, an e-mail is sent to DRS requesting registration. A confirmation e-mail is sent back to the registrant when the registration is complete.

**Find the fastest way to deliver mail.**

General Administration's Campus Mail System PO Box Delivery Schedule application allows mail delivery people, dock workers and customers to look up the delivery schedule for the state campus mail system, in order to check on schedule changes and determine next delivery truck for any emergency mail or package deliveries.

This dramatic growth in applications indicates Washington's digital government initiative has been successful on two levels. First, the transformation from "in line" to online has occurred. Agencies are now approaching their tasks from an Internet perspective, using the technology to transform their internal operations or to deliver services and information that meet citizen's needs and are easy to use.

Secondly, in an indication that the cultural transformation from independent application development to the single enterprise approach is underway, the number of agencies who have stepped forward to list their applications as part of the digital government vision has also increased. Agencies are recognizing the importance of working together in cooperative ways to give all online services a single look and feel, while maintaining independent control and responsibility for their applications. The benefits of utilizing cost and time savings devices such as application development templates, e-commerce infrastructure, and shared databases are becoming increasingly obvious to all members of the growing digital government community.